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Inaugural Essay

On

Puerperal Fever.

For the degree of Doctor of Medicine

In the

University of Pennsylvania

By

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New York

January 3^d 1829.

Among the various diseases that require the assistance of the medical profession, there is probably none that demands more decided and immediate aid, than the one under consideration; and in some does opinions differ to a greater extent than in this. It makes its attack almost immediately, or within a few days after delivery; and the uncommon quickness of the pulse; the painful soreness of the abdomen, and the distention of the cavity which attends after a short time; distinguish it from every other affection of the female kind. The highly accelerated pulse; the mammary secretions being arrested; the quantity and appearance of the lochia being altered; the constipated condition of the bowels; the peculiar character of the alvine discharges; the exemption for the most part from delirium; the loss of maternal feelings &c.; and its always being attended by putrid inflammation; are peculiarities which attend in the but cannot perhaps be enumerated in another female disease.

Putrid fever under all circumstances is considered a highly dangerous disease most fatal perhaps in the great or prostrations. It is observed by Dr. Gummow, that it occasions the death of much the greater portion of those

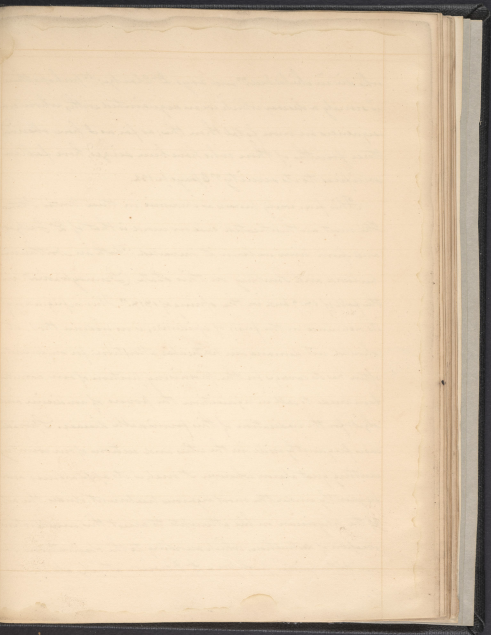
Essay.

By

G. L. Ingle

who die in childhood," and says Dr. Clarke: "perhaps there is scarcely a disease which we are acquainted with, whose consequences are more fatal than this; as far as I have observed three fourths of those who have been seized, have fallen sacrifices to its severity?" Essays p. 132.

This fever rarely prevails as epidemics in these United States. The most authenticated case on record is that of Dr. Jackson and from him we learn it prevailed, "both in Northumberland and Sunbury in this state, (Pennsylvania) in the fall of 1797 and in the spring of 1798." This infrequency of its recurrence in the form of epidemics, is no evidence that it should not demand our particular attention; for sufficiently often has its ravages on the promising portion of our country been made to call in requisition the powers of medicine and surgery for the eradication of this formidable disease. Sporadic cases frequently arise in the cities and sections of our country exciting great alarm whenever it makes its appearances and frequently under the most vigorous treatment, eludes the art of the physician in his attempts to arrest this unrelenting weapon of destruction, which according to the observations of our distinguished professor - Dr. Lewis - attacks all ages

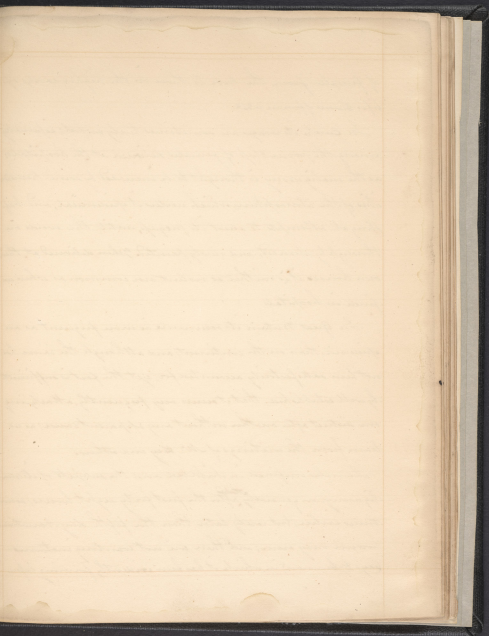


of females, from the poor to those in the higher ranks of life. *Diagnosis of female*, p. 369.

In Europe its ravages are sometimes truly awful; especially among the poorer class of females delivered at the hospitals; as the malignancy is thought to be increased by some peculiarities of the atmosphere, which render it epidemic, and baffling all attempts to arrest its progress, until the wards are thoroughly cleaned, and newly painted. When delivered at their own houses it is neither so violent nor common as when confined in hospitals.

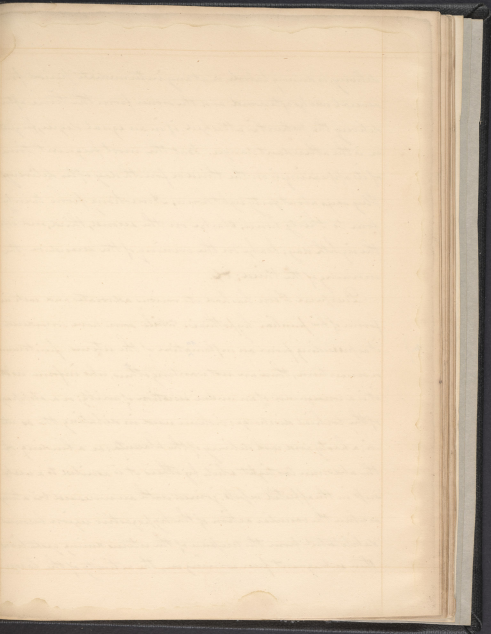
In Great Britain its occurrence is more frequent as an epidemic, than on the continent; and although the cause has not been satisfactorily accounted for, yet the fact is sufficiently well established, that it occurs very frequently, attacking one district after another without any apparent cause; as we learn from the writings of Mr. Bay and others.

Females confined in childbed and the subjects of its malignancy, are generally ^{attacked} after the first forty-eight hours; sometimes earlier, but rarely later than the fifth day. Variations however may occur; and there are not wanting instances (see Dr. Denison) in which it has been evidently forming before



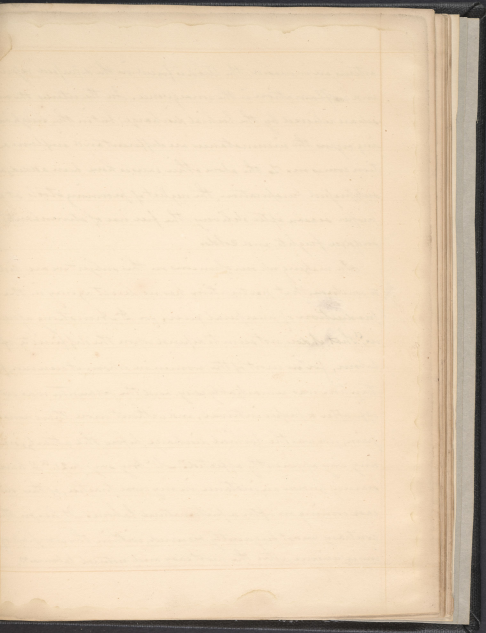
delivery, or during labour, or at any intermediate period for several weeks afterward; and the sooner from the time after delivery the patient is attacked, if in an equal degree, for quick or is the attendant danger. But the most frequent time of its appearing, is on the third or fourth day after delivery. It begins about forty eight hours; sometimes from twenty-four to thirty hours; chiefly on the second, third, and even the eighth day; chiefly on the evening of the second, or the morning of the third; &c.

Discusional Fever has had its various advocates and each in favour of his peculiar hypothesis. While some have considered it as proceeding from an inflammation of the uterus, peritonaeum, or ovarium, there are not wanting others, who inform us that it is a consequence of an undue secretion of milk; or a stoppage of the lochial discharge; violence used in dilating the os uteri; a hasty and rash delivery of the placenta; or a binding of the abdomen too tight; while by others it is ascribed to a weakness in the affected vessels, joined with an increased vascularity, as when the vascular action of the hypogastric region becomes debilitated from the pressure of the uterus during gestation, then subsequent fever coming on, the activity of the larger



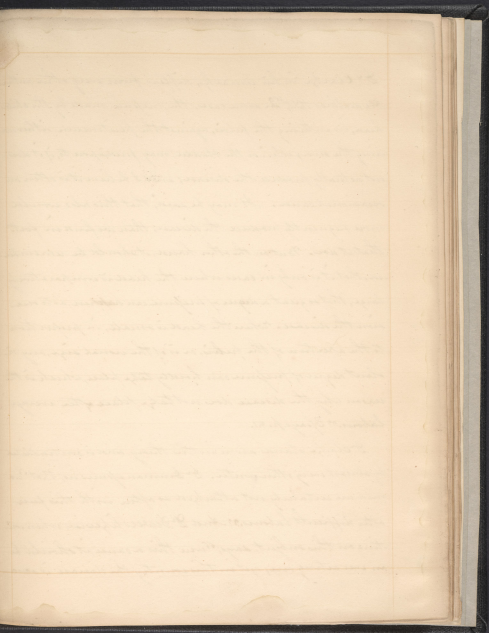
arteries are increased, the blood is forced on the depressed vessels, and inflammation is the consequence. In the uterus the vessels are relieved by the lochial discharge; but in the neighbouring organs the circumstances are different and inflammation comes on. To the above other causes have been added, as suppressed perspiration, the neglect of passing stools at a proper season after delivery, the free use of stimulants; sudden frights, and colds.

In making up our opinions on this subject we are led to conclude that puerperal fever has no direct agency in the production of puerperal fever, for Dr Armstrong observes, "that it does not seem to depend upon the difficulty of labour, for in most of the women in whom it occurred, parturition was remarkably easy, and the placenta was cast off after a proper interval, and without more than usual pain, nor was the lochial discharge, before the attack, in any way apparently affected." Mr Hey says, p. 21. "I have scarcely known an instance in my own practice, of this disease coming on after a preternatural labour. It has, on the contrary, most frequently occurred, within the compass of my experience, after the most easy and natural labours." 99



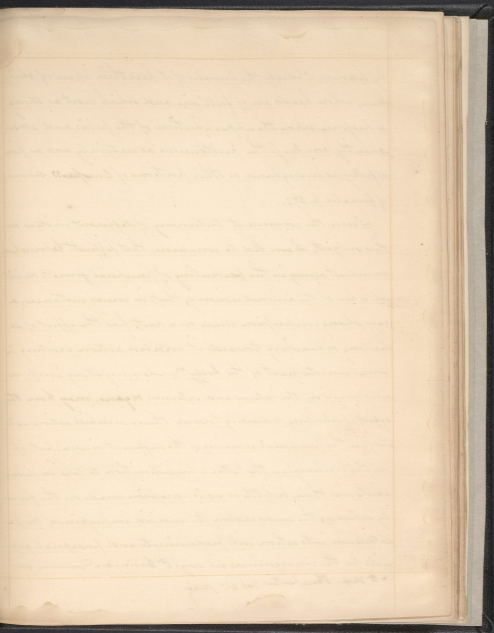
Dr. Clarke in his remarks, differs from every other author. He declares that, "In some cases, the pressure made by the child's head, in entering the pelvis, against the peritonæum, either covering the ovary, uteri or the bladder, may predispose to, if it does not actually produce the disease; and I believe it is often an occasional cause. It may be said, that this also would more frequently produce the disease, than we find in fact that it does. But on the other hand, it should be remembered, that it is only in cases where the head is comparatively large, that so great a degree of pressure can happen, as to occasion the disease. Where the head is small, in proportion to the aperture of the pelvis, or is of the usual size, any violent degree of pressure can hardly take place, which is the reason why the disease does not take place after every labour." Essays, p. 71.

Dr. Clarke stands alone in this theory, and is contradicted by almost every other writer. Dr. Denman assures us, that "Women are certainly not attacked so often with this fever after difficult labours." And Dr. Dewees likewise, when writing on this subject, says, "were this a cause, it should be an ever acting one; yet in this country the disease is scarce-



ly known, though the females of it have their share of chil-
dren, whose heads are of full size, and which exert as strong
a pressure upon the upper aperture of the pelvis, and conse-
quently, compress the peritonium as certainly and as pow-
erfully, as in england, or other portions of Europe. Sims
of females, p. 372.

From the concurrent testimony of different writers on
this subject, I am led to conclude, that difficult labour has
an indirect agency in the preventing of puerperal fever. "We sit
up a law of the animal economy, that, in many instances, a
very strong impression made on a part, has the effect of re-
sisting or drawing towards it morbid action existing in
some remote part of the body." As a very strong impres-
sion made on the uterus and external organs, may have the
effect of resisting or drawing towards them morbid action ex-
isting in the peritoneal covering of the different viscera; but, if
on the contrary, in the latter a predisposition to take on disease
exists, and there be little or no impression made on the former
by delivery, the cause exciting the morbid impression of the pe-
ritonium into action will predominate, and puerperal fever
will be the consequence, for says Dr Lennan "Gynaecol
* & Chop. Therapeutics, vol 2nd p. 46.



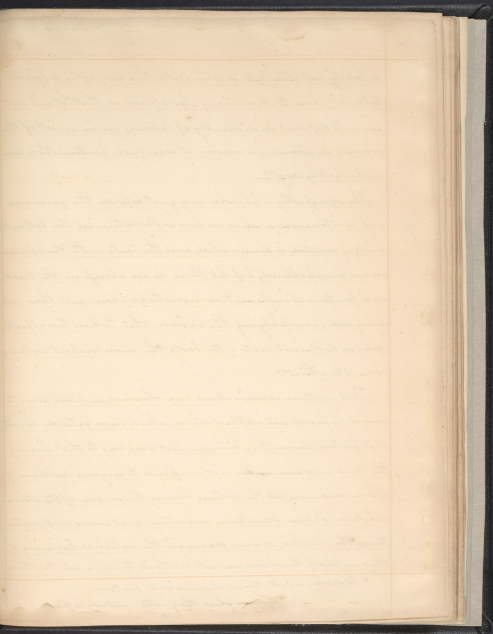
certainly not attached so often with this fever after difficult labours," And Dr. Smithson also assures us, that "it did not seem to depend on difficulty of labour; for in most of the women in whom it occurred, parturition was remarkably easy."

mf The sympathy is likewise very great between the mammae and peritoneum; as when we have inflammation in the latter, the milk if secreted, is diminished, and the taste with the appearance is much altered; but let there be an abscess in the breast, and peritoneal inflammation never takes place; and thus verifying and exemplifying the axiom, that "when two affections occur in different parts of the body, the more violent will overcome the other."

Post mortem examinations have shown purpural fever to consist in peritoneal inflammation; which never extends beyond that portion lining the abdomen, but does extend to that lining the bowels and viscera, ~~but~~ is it confined to any one portion of this membrane; but the portions lining the surface of the stomach, liver, spleen, mesentery, mesentery, great and small intestines, the bladder, uterus, ovaria, and the internal lining of the muscles of the abdomen, will in their turn, or all together

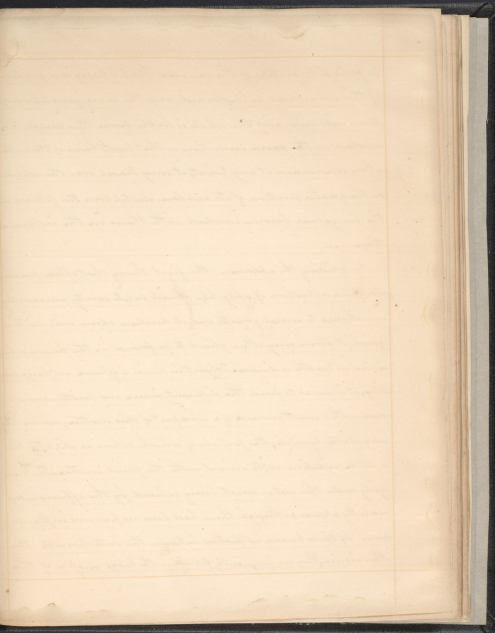
✓ In accordance with this are the words of the poet—

"~~where~~ where the greater malady is first
"The lesser is soon felt."



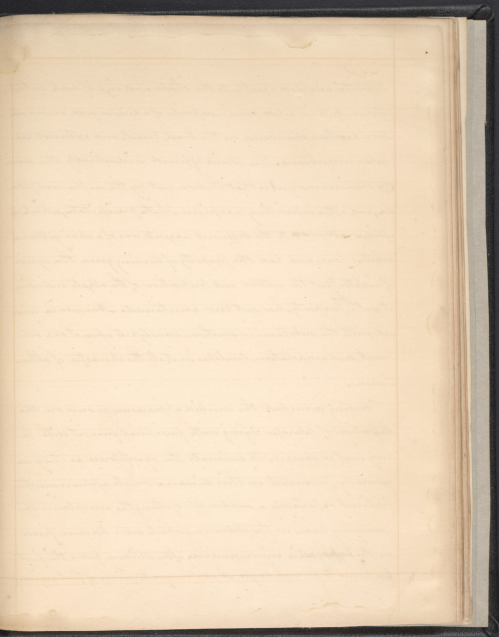
be found to partake of the disease. But let any one portion of this membrane be inflamed, and the same general symptoms will arise, and the whole is liable from this cause, to be involved in the same condition as that part, hence if the inflammation commences at any point, it may travel over the whole or the greater portion of its surface, until even the pleura and the lungs have become involved with them in the inflammation.

On opening the abdomen, the first thing that often presents itself, is a collection of whey-like fluid in its cavity, amounting sometimes to several quarts, and its peculiar odour will distinguish it from every other fluid to be found in the human body, either in health or disease. When this fluid is effused in large quantity, it is usual to find the different viscera and parts unimpaired with a crust formed of a solid part of this matter, resembling coagulable lymph; the particles of which cohere so slightly, that a little agitation will mix it with the fluid matter. The parts lying under this coat or crust, being relieved by the effusion, occasionally appear as though there had been no previous inflammation. If there be any interstices between the intestines or the other viscera, they are frequently filled with large masses of this

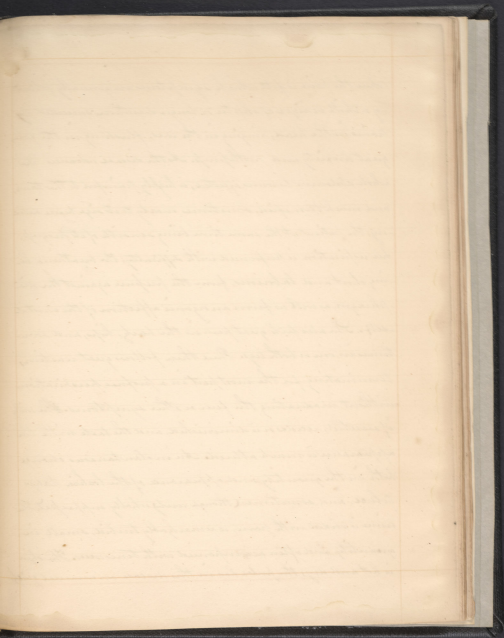


deposits, adapted exactly to the shape and size of such inter-
stices. And in a few cases a deposit of a cancerous and scrofulous na-
ture has been discovered in the head, breast, and external cel-
lular membrane. The fluid effused is identically the same
(by chemical analysis) as that thrown out by the inflamed pleu-
ra, and after depositing a copious white precipitate, which af-
forded albumen to the different reagents, was of a clear yellowish
white colour; and had the property of turning green the syrup
of violet. But the nature and proportion of the alkali endowing
it with ^{this} property, has not been ascertained. Ammonia mix-
ed with the substance in question, scarcely acts upon it as a sol-
vent, and evaporation develops in it all the characters of albu-
men.

Having described the morbid appearances as seen on the
dissection of females dying with puerperal fever; it will be
my next endeavour to delineate the symptoms as they are
generally presented in this disease. On its appearance the
patient experiences a sudden loss of strength, complains of
wandering pain in the abdomen, which soon become fixed
in the hypogastric region, continuing after delivery, from the first
few hours to several days. A swelling or tumour of that region,

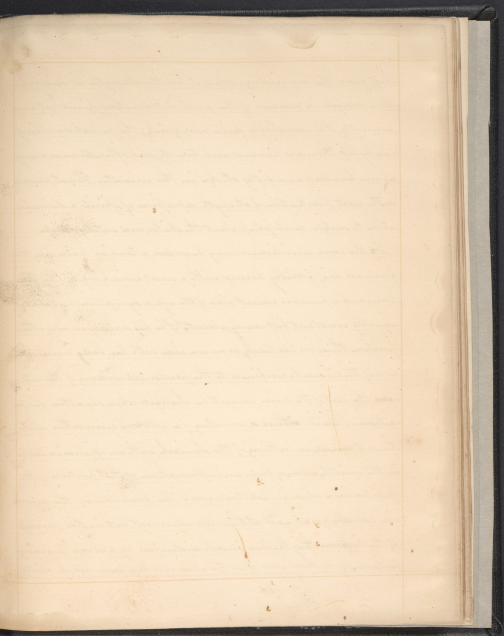


when the pain is felt, which symptoms are generally followed by a chill or rigor of shorter or longer duration, succeeded by pains in the head, ringing in the ears, flushing in the face, great anxiety and restlessness. As the disease advances the whole abdomen becomes affected, is highly painful to the touch, and much tumefied, sometimes nearly to its size before delivery; the patient at the same time being sensible of its progress; her respiration is performed with difficulty; the breathing being short and laboursome, from the pressure against the diaphragm, as well as from an organic affection of the chest itself. She also feels great pain in the back, hips, and sometimes in one or both legs. Thence then follows great reaction, terminating for the most part in a profuse perspiration, without moderating the fever or other symptoms. The menses if excited, recedes or is diminished, and the taste with the appearance is much altered. An instantaneous change both in the quantity and appearance of the lochia takes place, and sometimes (though rarely) wholly suppressed. The urine is voided with pain, is remarkably turbid, small in quantity, and often accompanied with tenesmus. The skin is hot and dry; the pulse has in this disease an unusual quick

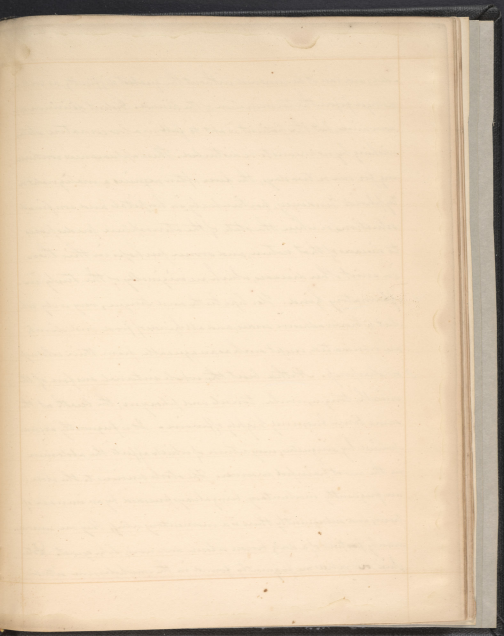


ness from the beginning. After it has the strength and vibra-
tion observed in diseases of the most inflammatory kind, yet more
frequently it is speedily feeble and quick; the pulsations being
scarcely less than one hundred and twenty, and often times as many
as one hundred and fifty strokes in the minute. Thirst prevails
with great prostration of strength, depression of spirits, a disinclina-
tion to sleep, carelessness about the child, and watchfulness.

To the above mentioned may be added a tense pain over the
forehead as if possibly bound with a cord; a sinking of the fea-
tures, and a peculiar vacant stare of the eye, a symptom perhaps not
equally constant, but rarely absent. She lies scarcely in any other
position than on her back, or on one side with her body incurvated
and if the disease be confined to the peritoneal covering of the ute-
rus, the seat of the pain seems to be changed when she alters her po-
sition. There is either a vomiting of a yellow or green bitter mat-
ter, or a nausea or loathing of the stomach, with an offensive taste
in the mouth, arising from an inflammation of that portion of the
peritoneum which invests this organ. The function of the prima
via usually goes on well at the commencement, but in the progress
of the disease, they become much disturbed by a severe purging,
particularly in those cases where the abdomen has been much disten-

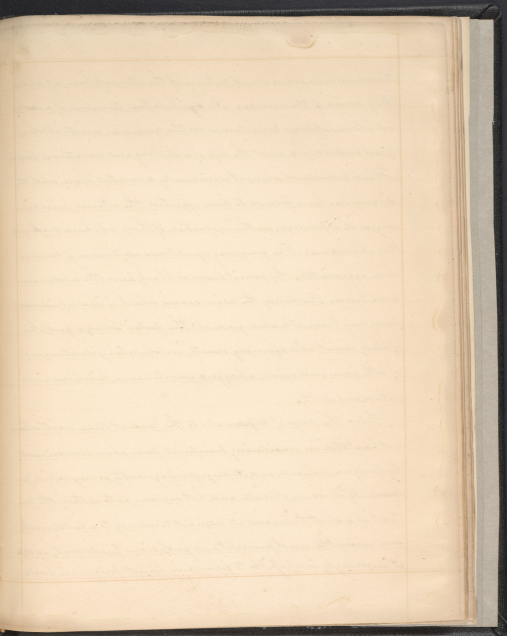


-dest, we can it be removed without the greatest difficulty, as well as
danger before the termination of the disease. Violent delirium sel-
dom misce, but the patient is apt to fall in a low comatose state,
wishing by no means to be disturbed. These appearances continu-
ing for one or two days, the fever often acquires a malignant or
typhoid tendency, particularly in hospitals and confined
situations, or when the state of the atmosphere predisposes
to diseases of that nature, and sooner perhaps in this than
in most other diseases, which are originally of the truly in-
✓ flammatory kind. Her lips, teeth, and tongue, very early col-
-lect a brown adhesive sordid, and all kinds of food and drink
are nauseated, except such as are agreeable from their coldness
✓ or sharpness. Apthae beset the whole internal surface of the
mouth, tongue, uvula, tonsil and pharynx; the breath at the
same time becoming highly offensive. It is frequently accom-
-panied by singultus, every return of which affects the abdomen
in the most painful manner. The stools previous to the close
are frequently involuntary, being always preceded by an increase of
pain; and subsequently there is a momentary relief. They are uncom-
monly foetid; of a dark brown colour; and much like guano. Dot-
-chin or vitellus are frequently found in the smotherous situa-



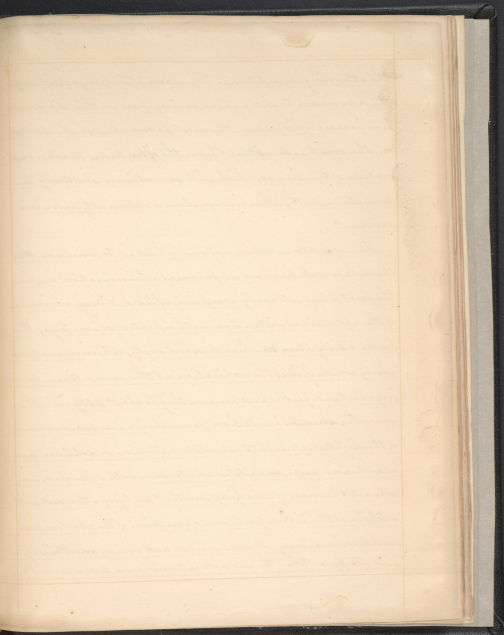
tions, and in some constitutions of the atmosphere, at a very early period of the disease. An erysipelatous tumour of a dusky red colour, appears sometimes on the humphles, wrists, elbows, knees and ankles, about the size of a shilling, and sometimes larger. This is considered almost universally a mortal sign, and the disease has been found to have affected the uterus principally, or its appendages, on the inspection of those who have died with this appearance. The foregoing symptoms continuing, become more aggravated, the vomit becomes black, and the abdomen more tense; Suddenly the pain ceases, which is inauspicious. (being only favourable when gradual) the pulse sinks; gushes of black vomit; cold clammy sweats, involuntary discharges of both feces and urine, a haggard countenance, laborious respiration, and death.

From the days of Hippocrates to the present time writers have not hesitated in considering purpural fever as an imminent-ly dangerous disease, and its progress is frequently so very rapid, particularly in warm climates and hot seasons, as to destroy the patient in a short time; and its frequent tendency to a fatal result, even under the most prompt and judicious treatment, makes it seemingly impossible to form any correct prognosis from



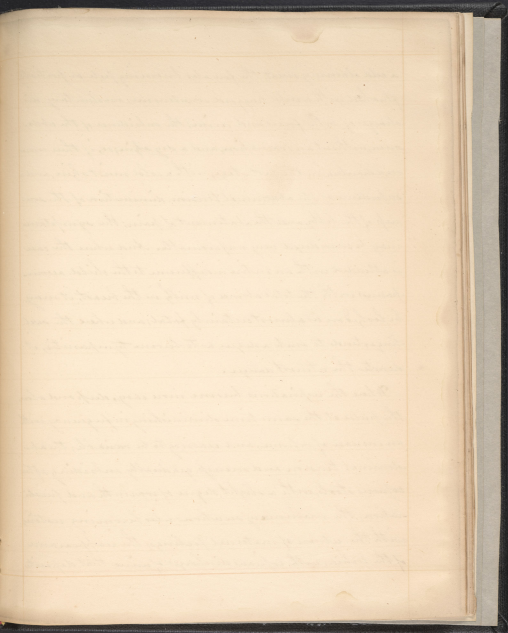
the attending symptoms. Therefore it is always proper for the physician to give a guarded prognosis in this disease; for even in cases which seem the most favourable, we should look on the event as doubtful "from the oftentimes treacherous nature of the disease, which will sometimes suddenly terminate in death, when circumstances apparently promised recovery."

The symptoms which naturally lead us to conclude that the disease will have an unfavourable termination, are in the first place, its early accession after delivery; an increase of the abdominal distention, with repeated shiverings; the pulse rising above one hundred and sixty, extremely weak, and easily compressible; the respiration at the same time becoming short and feeble, and amounting to about fifty in the minute; mental irritation (as occurring in unparried women) or the slightest approach to mental confusion or delirium is an inauspicious sign, an agitated countenance, with a hurried, unconnected manner of speaking; constant sighing attended with a tossing of the arms; pain and oppression of the chest; visual illusions, imaginary strange sounds and voices, muttering, and stuper. When the face and extremities are bedewed with



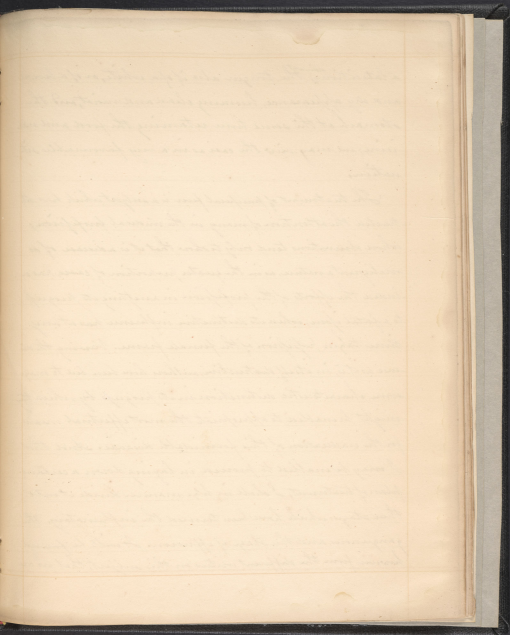
a cold clammy sweat, the face also becoming pale or partially flushed, with a wild haggard countenance; involuntary discharges of both feces and urine; the subsidence of the abdomen, without an evacuation, and a dry skin; or, if there comes on a diuresis in the last stage, with a cold moist skin, and a subsidence of the abdominal tension, diminution of the soreness of the belly, and the abatement of pain; the symptoms may be considered very unfavourable. And where the case is attended with an entire indifferance to the child, accompanied with the total absence of milk in the breast, it may be looked on as almost certainly fatal; and where the swelling extends to such a degree as to become tympanitic, it denotes the utmost danger.

Where the respirations become more easy, deep and slow, the pulse at the same time diminishing in frequency with an increase of volume, and ceasing to be variable; the abdominal tension and soreness, gradually subsiding after copious stools, with a slight degree of warmth and perspiration; the mammary secretions also becoming restored, with the return of maternal feelings; the disappearance of the lochia, with copious discharges of urine that deposite



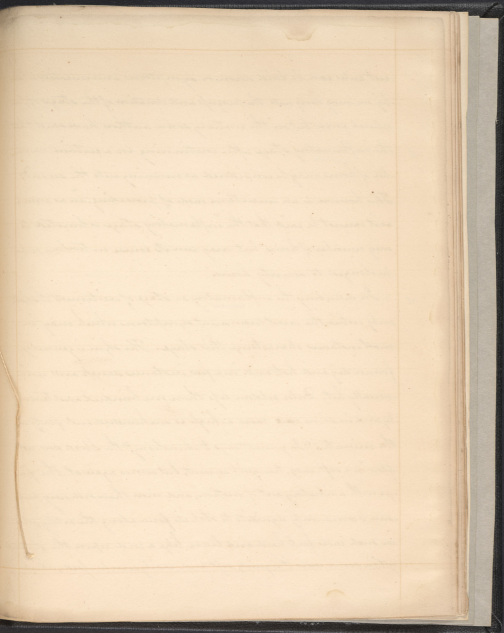
a latitious; ^{rising} the tongue also if of a white, or of a brown and dry appearance, becoming clean and moist, and the stomach at the same time retaining the food and medicine; we may view the case as in a very favourable situation.

The treatment of purpural fever is a subject which has attracted the attention of many in the medical profession; whose observations tend only to show that it is a disease of so malignant a nature, as in the greater proportion of cases, has excluded the efforts of the profession in arresting its progress to a fatal issue, when its destruction infernally has at every time taken possession of the female frame. Viewing the disease as it is, in itself destructive, authors have been led to make some characteristic distinction in its progress by which they might be enabled to appropriate the most effectual means for the eradication of this formidable disease. And that I may be enabled to proceed in laying down a certain plan of treatment, I shall in large measure divide it into three stages, which have been termed the inflammatory, the gangrenous, and the stage of effusion. It will be found however from the different writers on this subject, that no one



rect rules can be laid down, or symptoms enumerated whereby we may designate the progress and duration of the stage of pur-
peral fever; but on the contrary some authors have said that
the inflammatory stage after continuing for a certain num-
ber of hours may be considered as running into the second;
This however is an uncertain mode of proceeding, in as much
as it cannot be said that the inflammatory stage is limited to
any number of hours, but may run its course in twelve, or be
prolonged to seventy hours.

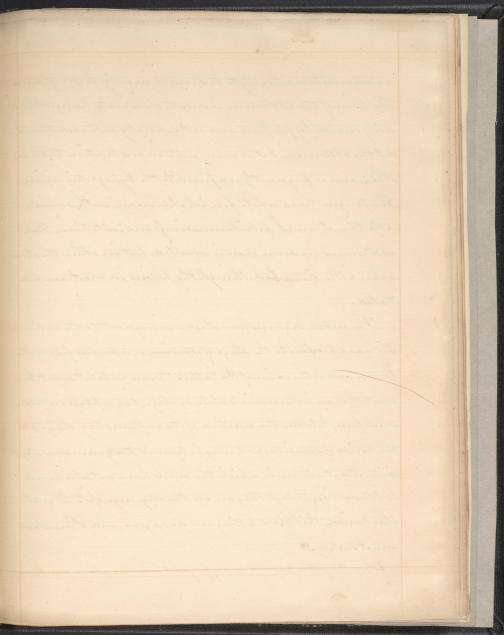
In describing the inflammatory or stage of excitement I shall
only notice the most prominent symptoms which may in
most instances characterize this stage. The skin is generally
found dry and hot, and in a few instances damp and uni-
versally hot. Pulse seldom less than one hundred and twenty,
and in some rare cases as high as one hundred and forty in
the minute. "In general" says Dr. Lushington, "the blood does not
flow in a soft, easy, tranquil current, but comes against the fin-
ger with a vibratory sort of motion, and more than ordinary pres-
sure is commonly requisite to stop its force along the artery, which
in such cases feels hard and tense like a cord upon the stretch;
yet in some cases it is quite soft and easily compressed, which



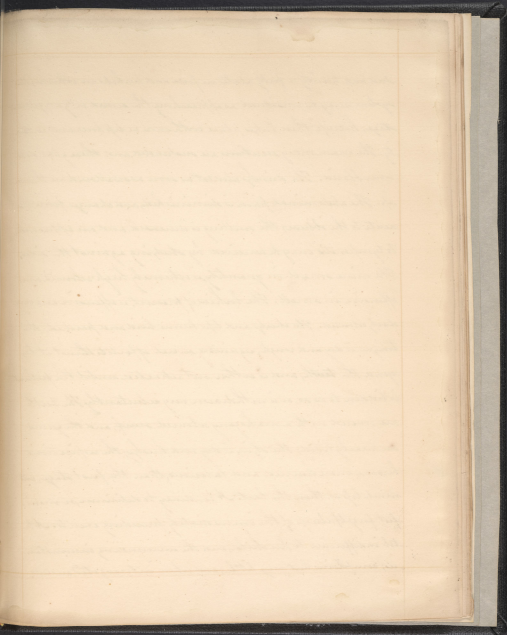
is a circumstance highly to be dreaded in every form of fever. The pain of the abdomen is mostly of an acute pungent kind, easily excited by pressure and not generally diffused throughout the abdomen, but is more acute in one portion than another, and is frequently confined to the hypogastric region. The tongue has a white furred appearance, with considerable thirst, much fetid mucus, and irritation. Bile and mucus in some cases is vomited, but in others the stomach is little disturbed, though the powers in general are prostrated.

The second or gangrenous stage is subsequent to the inflammatory and previous to the stage of effusions, or, is derived from the former and is the cause of the latter. "You are certain," says I believe, "that an intermediate state, or stage, takes place in purulent fever, between the expiration of the inflammatory stage, and the period of effusions, and may be termed this 'gangrenous stage,' since it is at a time in which the vessels have not absolutely lost their life, though they are on the very verge of it. It is at this period, that blood letting can do no good, and stimulants must destroy."

When the pulse becomes more frequent and rises above one hundred.



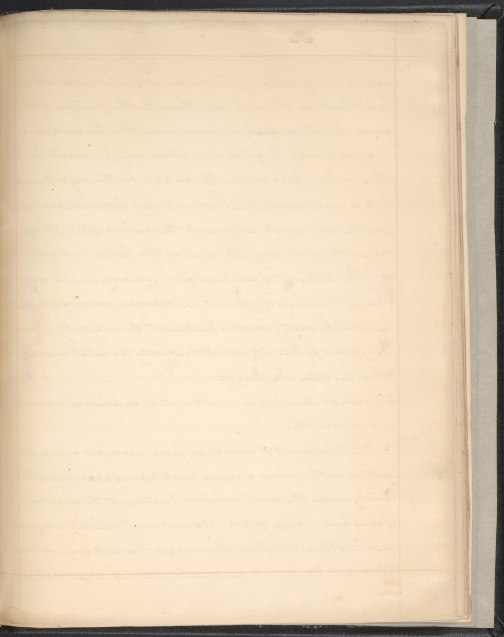
and twenty or forty, abates in force and perhaps in coherence the system may be considered as approaching the second or 2^d stage; hiccup then takes place with more or less force and certainty; the mammary secretions are suspended, and these glands become flaccid. The discharges almost as soon as swallowed are thrown up. The abdominal pain is diminished, and changes from the acute to the obtuse; the swelling is increased, and on approach to tympanitis may be perceived by striking against the sides. The urine small in quantity, is extremely high coloured, and offensive in smell. The breath if present, is offensive and very dark coloured. The cheeks and lips become livid and parched; the tongue is dry and rough, requiring several efforts to thrust it beyond the teeth, and is either not retracted until the patient is bidden to do so, or is withdrawn very reluctantly. The teeth are covered with a mahogany coloured scurf, and the gums are nearly livid; the skin is dry and husky; the inspirations become more hurried and laborious, than the first stage, and much less so than the last. A tendency to delirium, or manifest forgetfulness of the immediately preceding events. A total indifference to her child, and the surrounding circumstances; complains but very little; and when interrogated answers



vaguely, or contradictorily. The pulse is now rapid, and rather indistinct, and the wrists colder than the other portions of the arms. This stage rarely continues more than twelve hours.

And finally the fatal symptoms which characterize the third or last stage appear. The pulse is fluttering and scarcely to be numbered; the abdomen much distended and tympanitic; cold sweats confined to the face and extremities, or bedews the whole body; the skin on the hand becomes shiny & black; repeated shillings without reaction; gushes of a dark brown or coffee coloured fluid are thrown up; the stools become involuntary, and sometimes there is a profuse discharge from the uterus of a bloody serum, or black, gummy appearance; the tongue frequently moist, and an attempt sometimes is made at clearing; and ultimately, delirium, convulsions, and death.

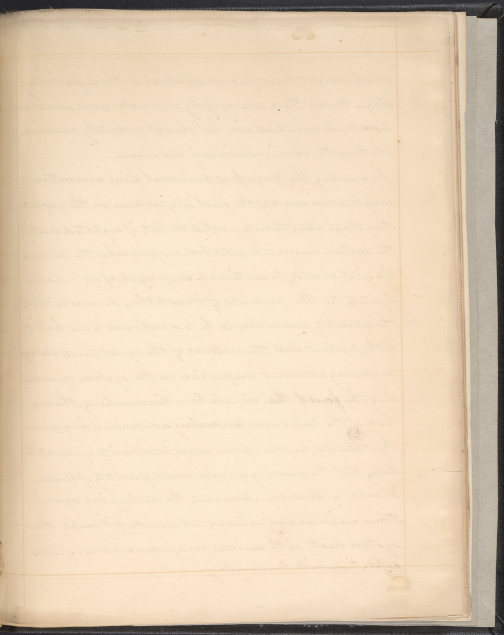
The treatment of purpural fever remains much unsettled in the minds of many practitioners; and unfortunately under the most judicious treatment, the majority of cases have proved fatal. Its apparent rapidity to a fatal termination, has often discouraged the well disposed practitioner and led him to the abandonment of every means.



✓ which might have proved effectual in the inflammatory stage. Under these discouraging circumstances, we should not discard all remedial aid, but should resolutely prescribe whatever the case imperiously demands.

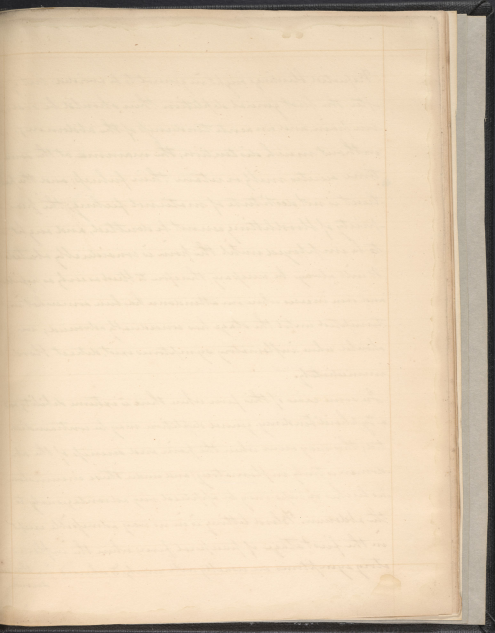
In arresting the progress of purpurial fever, venesection may be considered of the first importance in the inflammatory stage when timely resorted to; but, if neglected until the system becomes prostrated, or approaches the second stage; it should be cautiously employed, if not wholly objected to. The propriety of bloodletting being admitted; the quantity drawn should be proportioned to the habit of the patient and the violence of the symptoms, always producing a decisive impression on the system; by reducing the force of the circulation; diminishing the violence of the pain; and producing a disposition to syncope.

If it should happen, from some peculiarity of constitution, that the drawing of a very small quantity of blood should produce fainting; and the distressing symptoms are in no way relieved; we must wait until the system waxes with decided force; when a more copious depletion will be necessary.



Repeated bleedings ought in general to be avoided; but if after the first general depletion there should be a severe pain, and an acute tenderness of the abdomen; without much distention; the mammae at the same time secrete milk, or retain their fulness; and the patient is not destitute of maternal feeling; the propriety of bloodletting cannot be doubted, and ought to be employed until the pain is considerably abated. It will always be necessary therefore to bleed as early as possible, and even in cases where our attendance has been somewhat interrupted until the stage has considerably advanced; we should when inflammatory symptoms exist, deplete blood immediately.

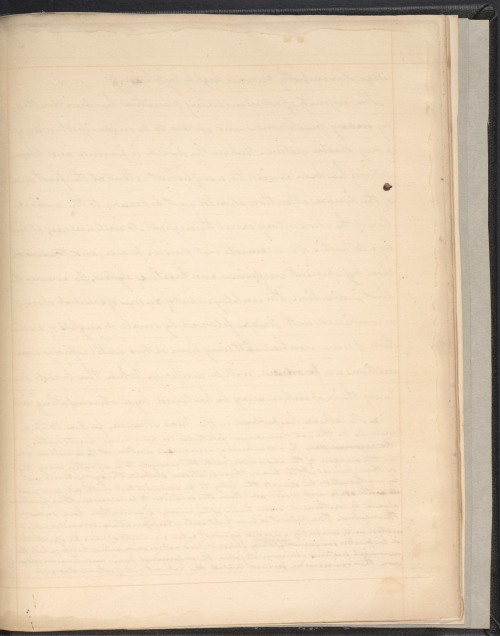
In some cases of this fever when there is extreme debility and a typhoid tendency, general depletion may be contraindicated; this may occur when the pain and soreness of the abdomen is truly inflammatory; and under these circumstances leeches or cups may be applied very advantageously to the abdomen. Bloodletting is in no way admissible except in the first stage of puerperal fever, when the inflammatory symptoms are usually well marked; whereas in the second
second.



stage it manifestly becomes highly Euphoric. //

The propriety of administering purgatives has been doubted by ~~many~~ practitioners; and appears to be inadmissible when of a very drastic nature. When the disease is formed and blood-letting has been carried to a sufficient extent at the first onset of the disease, attention should next be directed to the evacuation of the alimentary canal throughout its continuance, at first by a cathartic of a moderate but decisive power, and towards the close by aperient medicines and laxative systers. To answer the first indication, the employment of 3 or 10 grs of Calomel alone, or combined with Jalap, followed by small draughts of a solution of some neutral salt every hour or two until copious evacuations are produced, will be necessary. When the bowels are tardy their operation may be hastened by a stimulating in-

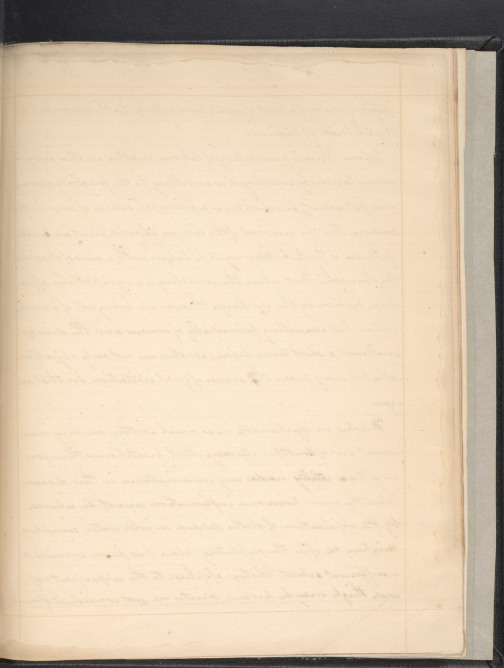
2. M. Belfrage has published in the *Revue Medicale*, for Jan. 1824, a memoir on the various anatomical pictures or pathological pictures. He recommends two drawings of surgical anatomy to be called on at the surface of the abdomen, and the necessity to be repeated every two or three hours. After two or three pictures should the symptoms not be mitigated, he directs the belly to be sprinkled with oil, and wash it with soap and water, and then the pictures to be renewed. The pictures should be continued some time after the meals of salivation have ceased themselves. The patient is to be kept in a temperature considerably elevated and carefully a measure against cold currents of air. He reports that in his practice accompanying ^{truly} false, if not not even actual haem, while the surgical pictures always mitigate the abdominal pain and tension even more than one measure, several above the patient out of actual danger.



-jection, made of a pint of water and a large table spoonful of the Chloride of Potassium

When there is a vomiting of bilious matter, emetics may be advantageously employed as auxiliary to the foregoing remedies, but cannot be relied on as a principal source of cure in this disease. For the removal of the bile, we should direct an emetic of Ipecac. or Tart. Antimony to be taken with a view of clearing the stomach. But when the vomiting is a sympathetic affection, hyssop by the discharges thrown up being not of a crude nature, but consisting principally of mucus and the drinks swallowed a short time before; emetics are not only objectionable, but may prove the source of great irritation in that organ.

Blisters are objectionable in as much as they are very inconvenient and of doubtful efficacy. Most practitioners therefore deny their utility under any circumstances in this disease. Where the same pain and inflammation cannot be relieved by the application of cloths dipped in cold water, camphor mixture &c. after the depletion plan has been carried to a sufficient extent, blisters applied to the upper part of each thigh may be proper. Blisters are not considered of much



decided benefit in the case of purpurul fever, when it is accompanied by extreme efforts or after pains, irritability of the stomach and intestines after vomiting has been obviated; spirits may afford great relief to the patient by easing the pain and producing sleep.

In the second or gangrenous stage great simplicity of treatment is required. Stimuli can scarcely find admission in this weak but active stage. They may for a time produce temporary strength, but in the end from the increased action they produce the system becomes prostrated so low that it will be beyond the power of human effort to restore it. The bowels should not be purged with irritating articles, but then least or one preferable; and to procure three or four stools in the course of a day when they do not set spontaneously, is indispensable.

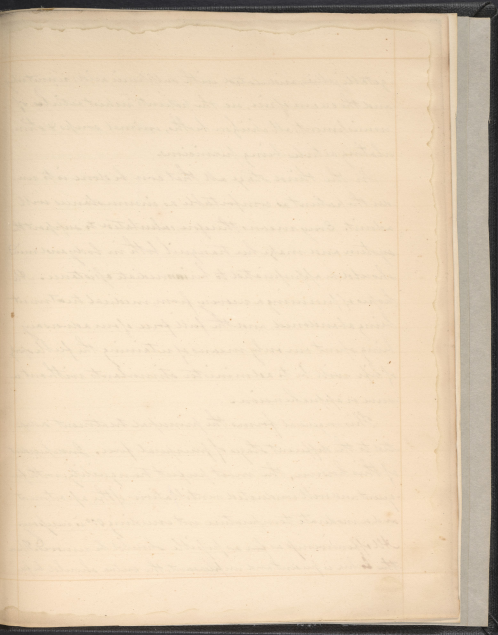
Should the irritation of the stomach be great, accompanied with frequent vomiting, direct a saline draught to be taken every hour or two, with the frequent employment of mucilaginous liquors, acidulated, as drinks. Strong coffee is said to be often grateful to the stomach, if the vomiting be troublesome, and may be given freely. Light re-

61. *Arctostaphylos*

-getable jellies, acidulated with sulphuric acid; sunset jelly
and the cream of rice, are the patients richest articles of
nourishment; all chicken broths, animal soups & stim-
ulating articles being pernicious.

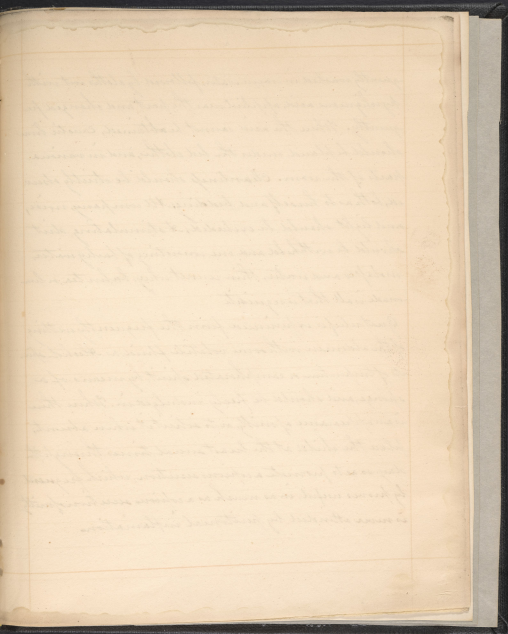
In the third stage all that can be done is to un-
der the patient as comfortable as circumstances will
admit. Every means therefore, calculated to support the
system and make her tranquil both in body and mind
should be appropriated to her immediate assistance. All
hopes of procuring a recovery from medical treatment
being abandoned, and the full force of our adversary
being spent, our only means of retaining the feeble spark
of life will be to administer stimulants without a-
ny reserve or apprehension.

This in general forms the principal treatment adap-
ted to the different stages of purpurial fever. Independent
of this however, the most perfect tranquility, with fre-
quent and well conducted ventilation of the apartment
and a moderate temperature not exceeding 60° is necessary.
All offensiveness as far as possible should be removed. When
the lochia is present and unpleasant, the vulva should be fre-



quently washed in warm water, followed by cloths wet with pyroligneous acid, applied near the part and changed frequently. Where the acid cannot be obtained, Caustic lime should be placed under the bed clothes, and in various parts of the room. Cleanliness should be strictly observed, both as to himself and bedding; All company, noise, and light should be excluded; A stimulating diet should be withheld and one consisting of barley water, molasses and water, thin cream whey, balm tea, or lemonade is all that is requisite.

Great relief is experienced from the frequently wetting of the abdomen with some volatile fluid, as Alcohol spirits of turpentine or camphorated spirit, by means of a sponge, and should be freely indulged in. Where there is an appearance of milt, or to solicit it when absent, place the child at the breast several times through the day, so as to promote a copious secretion, which frequently proves useful, in as much as a copious secretion of milt is never attended by peritoneal inflammation.



Such are the views I have been constrained to take of the causes, symptoms, progress, and treatment of Quin-
sial Fever, not from any experience of my own, but as col-
lected from the practice and observations of those authors who
are distinguished for their talent and acuteness of percep-
tion in matters connected with the obstetrical depart-
ment. Presenting it therefore as it necessarily must be im-
perfect— from our limited knowledge of the mysterious work-
ings of the Deity; I shall only add that my greatest desire is,
that I may through perseverance and industry, be ena-
bled to acquit myself satisfactorily before your honourable
board; and in future life prove particularly useful to suf-
fering humanity, and an ornament to the profession which
you so eagerly labour to honour by your constant and un-
wearied searchings into every thing calculated to lessen
misery, and place mortals above the reach of hopeless
despair.

